3. Solve for p and q in the figure shown.

![Figure showing a geometric problem with variables p and q.]

4. **Given:** a \parallel b \parallel c \parallel d
   
   KP = 15

   **Find:** KM, MO, and OP

![Figure showing parallel lines with segments labeled a, b, c, and d.]
5. Solve for $x$ in the diagram shown.

6. Given: $\angle RVS \cong \angle SVT$
   
   Find: $ST$
7. Given the diagram, solve for $x$.

![Diagram of triangles with labels R, S, T, 6, 4, x, V, and 60 degrees angle.]

8. A 60 m tower casts a 50-m shadow, while one-half block away a telephone pole casts a 20-m shadow. How tall is the telephone pole?
9. \( \angle J = \angle MKO \)

Find PO & JP

10. \( SV \parallel RW \)

Find SV & VT
11.

\[ \text{BE} \parallel \text{CD} \]

Find perimeter of BEDC

![Diagram](image)

12.

**Given:** \( \overline{GJ} \) bisects \( \angle \text{FGH} \)

**Find:** \( \text{JH} \)

![Diagram](image)
13.

**Given:**  \( r \parallel s \parallel t \)

**Find:**  \( QZ \) and \( ZY \)

19a.

One side of a triangle is 4 cm longer than another side. The ray bisecting the \( \angle \) formed by these sides divides the opposite side into 5-cm and 3-cm segments. Find the perimeter of the triangle.

19b.

If the first side of the triangle in part a were \( x \) cm longer than the second side and the other information was unchanged, find the triangle’s perimeter in terms of \( x \).
20.

**Given:** $\overline{GK} \parallel \overline{HJ}$

**Find:** The perimeter of $\triangle HJF$

22.

**Given:** $\overline{VS} \parallel \overline{MR}$

$SR = TW = TX$

**Find:** $XP$
27.

If two flagpoles are 10m and 70m tall and are 100m apart, find the height of the point where a line from the top of the first to the bottom of the second intersects a line from the bottom of the first to the top of the second.